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LAND USE ASSESSMENTS; 1980 POPULATION PROJECTION AND POPULATION CAPABILITIES



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technical report three

1980 POPULATION PROJECTIONS
AND POPULATION CAPABILITIES
A PART OF THE COMPREHENSIVE PLAN

PREPARED FOR

THE TOWN COUNCIL, TOWN OF CARY, N. C.

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TABLE OF CONTENTS

INTRODUCTION 1

METHODOLOGY 2

Sewer Capability 2

Existing Zoning 2

Existing Land Uses 2

Flood Plain and Steep Slopes 3

Tractability 3

RESEARCH AND PROCEDURES 9

a) Present Average Occupancy Rate 9

b) Present Density of Residential Units per Developed Residential Acre 9

c) Present Available Gross Residential acres for 1980 Population Projections 9

d) Present available Gross Residential for Population Capability Projections 9

1980 PROJECTIONS 10

1980 POPULATION SUMMARY 26

POPULATION CAPABILITIES 27

POPULATION CAPABILITY SUMMARY 41

POPULATION BY NEIGHBORHOOD WITHIN CARY'S CORPORATE LIMITS 42

POPULATION SUMMARY AND CONCLUSIONS 49

APPENDIX 50

TABLES AND CHARTS

1980 POPULATION PROJECTIONS

Watershed # 1 Upper Crabtree Creek 13

Watershed # 2 Coles Branch . . . . . .

Watershed # 3 Crabtree Creek Tributary-6 . . . 15

Watershed # 4 Black Creek 16

Watershed # 5 Reedy Creek 17

Watershed # 6 Johnson Creek 18

Watershed # 7 Swift Creek Tributary-5 19

Watershed # 8 Swift Creek Tributary-6 20

Watershed # 9 Swift Creek 21

Watershed # 10 Swift Creek Tributary-7 22

Watershed # 11 Upper Swift Creek. 23

Watershed # 12 Swift Creek Tributary-4 24

POPULATION CAPABILITY PROJECTIONS

Watershed # 2 Coles Branch 29

Watershed # 3 Crabtree Creek Tributary-6 . . . 30

Watershed # 4 Black Creek 31

Watershed # 5 Reedy Creek 32

Watershed # 6 Johnson Creek 33

Watershed # 7 Swift Creek Tributary-5 34

Watershed # 8 Swift Creek Tributary-6 35

Watershed # 9 Swift Creek 36

Watershed # 10 Swift Creek Tributary-7 37

Watershed # 11 Upper Swift Creek 38

Watershed # 12 Swift Creek Tributary-4 39

TABLES AND CHARTS

POPULATION BY NEIGHBORHOOD WITHIN
CARY'S CORPORATE LIMITS 43

POPULATION BY WATERSHED WITHIN
CARY'S CORPORATE LIMITS 46

MAPS

CARY PLANNING AREA - SEWERED AREA 4

CARY PLANNING AREA - EXISTING ZONING 5

CARY PLANNING AREA - EXISTING LAND USE 6

CARY PLANNING AREA - FLOOD PLAIN & STEEP SLOPES . . . 7

CARY PLANNING AREA - TRACTABILITY ANALYSIS 8

CARY PLANNING AREA - 1980 PROJECTED POPULATION CAPABILITY BY WATERSHED 25

CARY PLANNING AREA - POPULATION CAPABILITY BY WATERSHED 40

CARY PLANNING AREA - PRESENT POPULATION WITHIN TOWN LIMITS BY COMMUNITIES 45

CARY PLANNING AREA - PRESENT POPULATION WITHIN TOWN LIMITS BY WATERSHED 48

INTRODUCTION

This publication deals with the third step in the development of a Comprehensive Land Use Plan which is the "population projections" for Cary and its extraterritorial zoning jurisdiction.

The old cliche, "Two's company, three's a crowd," has never been more realistic than in our present decade. Because of limited resources and the desire for urban living and security, the character of the new city has become one of large scale urban concentrations. At a time when the consideration is to preserve land, this planning mode is a most constructive one if our planning priorities are the same. The more people that live in a confined area with conflicting priorities, the more problems arise with providing services and safety from ill environmental affects. The ability to determine present and future population projections will enable the planner to create a harmonious atmosphere between citizens and environment. This publication will outline the methodology and procedures that the Department of Planning and Development of Cary used in determining population projections and will furthermore, indicate the results and conclusions of this study as part of the Comprehensive Land Use Plan.

The Department has found through prior studies and investigations outlined in the Watershed Planning Unit Publication, that only certain land areas can realistically be contiguous with development and the physical ability of land to accept development without critical problems arising. This has a direct affect on the town's ability to protect its most important life giving commodity - people. The town must have the means to provide its citizens with safety, health and well-being for which it is obligated. Of major importance in such a relationship is how population plays an intregal part and relates to the very existance of the land we occupy. The need for upgrading our public service facilities, to include sewer, water, thoroughfares, and land use zoning according to the physical environment, is solely dependent upon the number of people now using and anticipated to use these facilities. It was not only important to survey how many people live in Cary's jurisdiction, but to know where these people live in relation to certain physical land characteristics. With this in mind, and since our land use plan is based upon watershed planning units, it was imperative to analyze anticipated jurisdiction wide population and study these findings for purposes of present and future growth patterns by watershed.

Assessment of land use and capability

To begin our population study, we had to develop certain criteria and relate this information to land use planning and existing land use conditions. The physical assessment of land within the extraterritorial zoning limits of Cary was divided into five major categories.

1. Sewer capability

To determine the extent of Cary's sewer capability which indicates the present status of land within Cary's jurisdiction as being either urban or rural, the following classifications were developed:

a) Presently sewered areas that are serviced by interceptors, trunk lines and laterals, with all properties either being serviced or having service available.

b) Presently sewerable areas that are serviced by interceptors and trunk lines, but without laterals serving all properties. Generally, all properties could be serviced with the installation of laterals on an assessible basis only; and

c) Potentially sewerable land that is serviced by an interceptor like a Crabtree or Swift Creek outfall, but as yet trunk lines and laterals have not be installed. (It would require some public investment to completely service these areas.)

The rural or non-sewerable areas would be those areas where complete systems would have to be installed to include interceptors, trunks and laterals.

2. Existing zoning

The remaining available land for use, according to Cary's Zoning Map, is of vital importance when it comes time to analyze residential land for our population projections. For this reason, all of Cary's zoning districts were classified and catalogued. All areas representing R-20 and R-12 zoning were single and two-family housing while the remaining residential districts (R-8, R-6, and R-4) were classified as multi-family housing. Even though portions of these last three residential districts are at present being used for single-family housing; in the maximum potential of these three districts, there is some degree of multi-family usage allowed. The remaining districts classified were in order as follows: mobile homes, office and institutional, business districts, and industrial districts. Each district classification was analyzed and tabulated, thus revealing a total acreage figure for each district by watershed.

3. Existing land use

The third existing condition determined was existing land use. These classifications correspond to the zoning classifications displayed on the Zoning Map, depicting residential use, business, office and institutional, industry and mobile homes.

With the addition of state owned land, and public and private recreation that exist within the limits of Cary's jurisdiction which is presently utilized, it was necessary to have this data to determine the amount of land in acres that is presently developed according to the zoning districts. From this, could be drawn conclusions about the total number of housing units in Cary's jurisdiction, the number of residential units per acre of land, and the occupancy rate per residential unit.

4. Flood plain and steep slopes

Finally, it was equally important to indicate those segments within the natural environment which depict certain visual qualities as well as definite restraints for development such as flood plains, slopes in excess of 15%, poor soils, and surface water such as lakes and streams.

The flood plains are those areas adjacent and running parallel to streams and rivers. These are the overflow basins which a stream or river may use when the amount of water from rain and runoff exceed the capacity of the stream's ability to move water through it at a certain volume. Different storm intensities mean different flood plain limits, so for the purpose of our study we used a 50 year storm intensity which is the standard used in the Engineering Department to determine flood plain areas. It was determined that due to the land characteristics previously described, and supporting legislation that allowed no development in flood plains, they would remain free from development and therefore, be exempt from our study as land available for development. This would definitely have a sizeable impact on any population projections. Excessive slopes could not be excluded as non-developable land as flood plains were, because of the lack of legislation in this area. Surface water is obviously not available for development and, therefore, is subtracted from the available useable land.

5. Tractability

At this point, the four previous studies were combined to determine the development potential of a given land area. This map reveals the amount and location, by watershed, of the available urban and rural land for development. All areas in white indicate rural land where no sewer systems are available. All land within the bounds of our urban area, which correspond to the sewer capability, is color catalogued according to the existing zoning. This area is the urban land available for development corresponding to the zoning of that particular area, thus, extracting all residential districts, we locate those residential areas in terms of acres that could support potential population increases.

The gray area establishes the non-developable areas which includes all areas now developed according to the existing land use map. This generally indicates those areas that have existing concentrations of development, along with the amount of land occupied. Since the flood plains and surface water are the only natural areas protected from development through legislation, we have also colored them gray knowing there would not be any potential development in these areas.

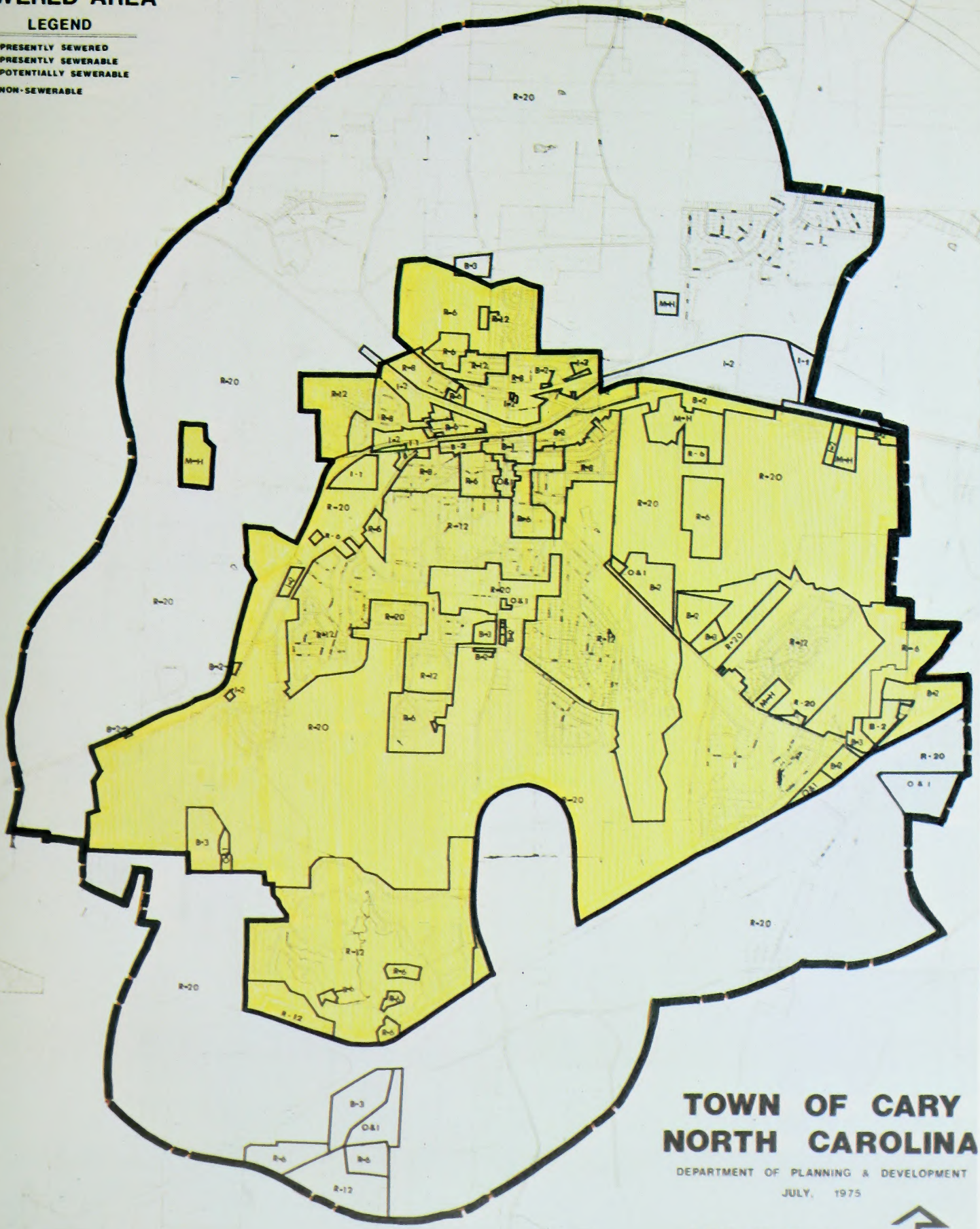
In summary, the tractability map is the basis for the population projections. With the information found on this map, we derived at those areas of urban and rural land that possessed certain qualifications for tractable land or developable land in accordance with the zoning regulations of Cary.

CARY PLANNING AREA

SEWERED AREA

LEGEND

- PRESENTLY SEWERED
- PRESENTLY SEWERABLE
- POTENTIALLY SEWERABLE
- NON-SEWERABLE



TOWN OF CARY
NORTH CAROLINA

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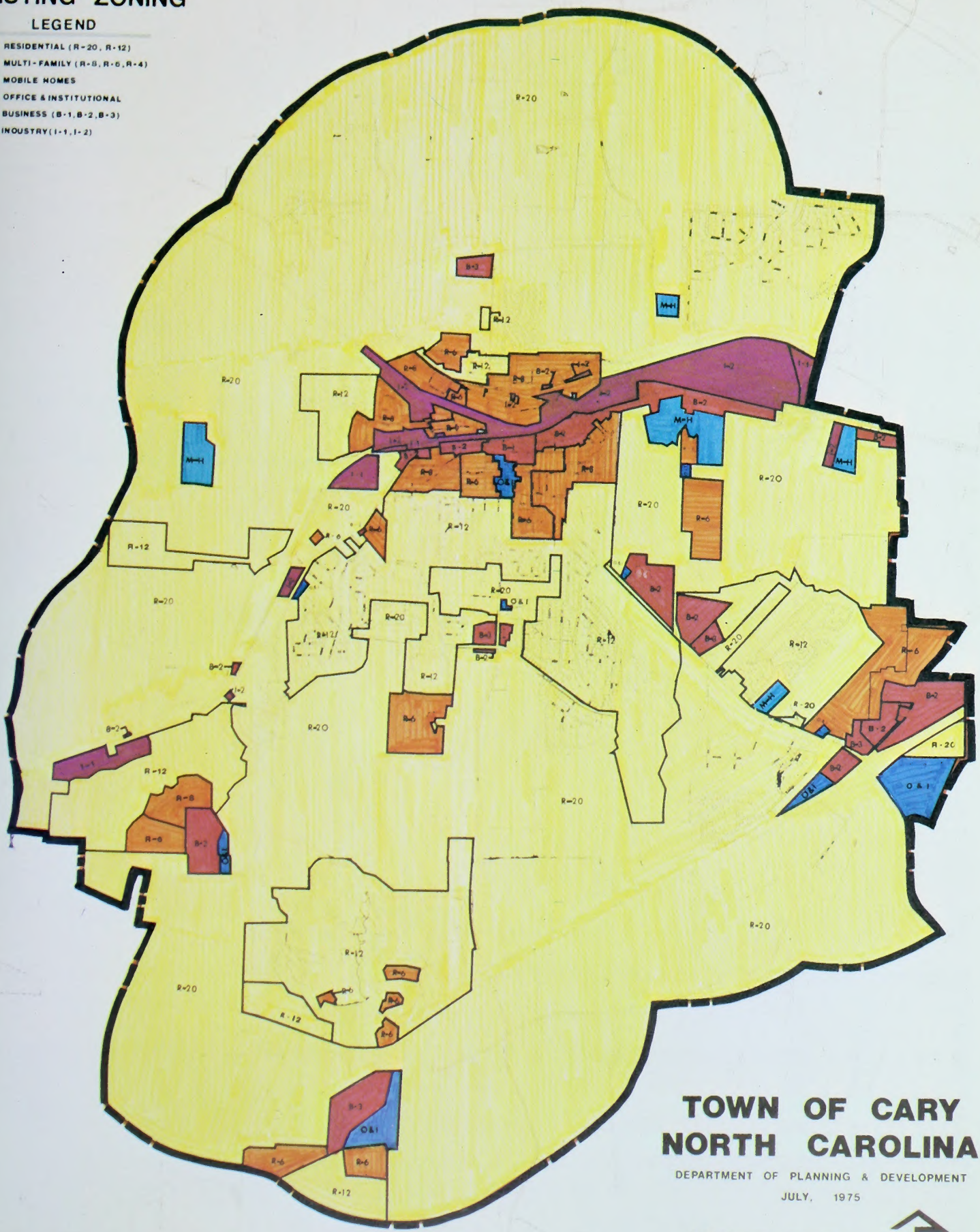
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CARY PLANNING AREA

EXISTING ZONING

LEGEND

- RESIDENTIAL (R-20, R-12)
- MULTI-FAMILY (R-8, R-6, R-4)
- MOBILE HOMES
- OFFICE & INSTITUTIONAL
- BUSINESS (B-1, B-2, B-3)
- INDUSTRY (I-1, I-2)



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JULY, 1975

SCALE IN FEET

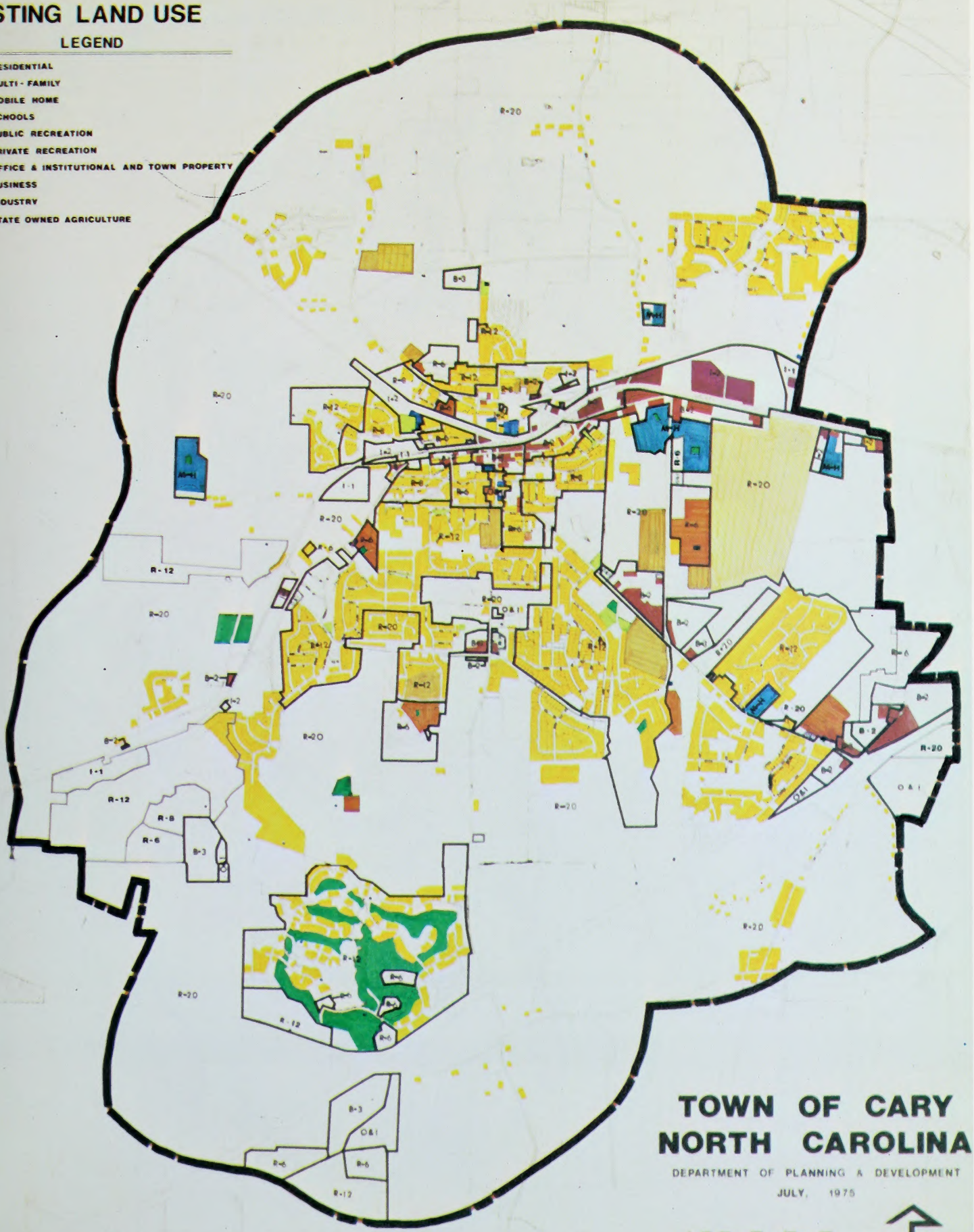
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CARY PLANNING AREA

EXISTING LAND USE

LEGEND

- RESIDENTIAL
- MULTI - FAMILY
- MOBILE HOME
- SCHOOLS
- PUBLIC RECREATION
- PRIVATE RECREATION
- OFFICE & INSTITUTIONAL AND TOWN PROPERTY
- BUSINESS
- INDUSTRY
- STATE OWNED AGRICULTURE



TOWN OF CARY
NORTH CAROLINA

DEPARTMENT OF PLANNING & DEVELOPMENT

JULY, 1975

CARY PLANNING AREA

FLOOD PLAIN (ALLUVIAL SOILS) & STEEP SLOPES

LEGEND

- SURFACE WATER
- FLOOD PLAIN
- SLOPES 15% OR GREATER



TOWN OF CARY
NORTH CAROLINA

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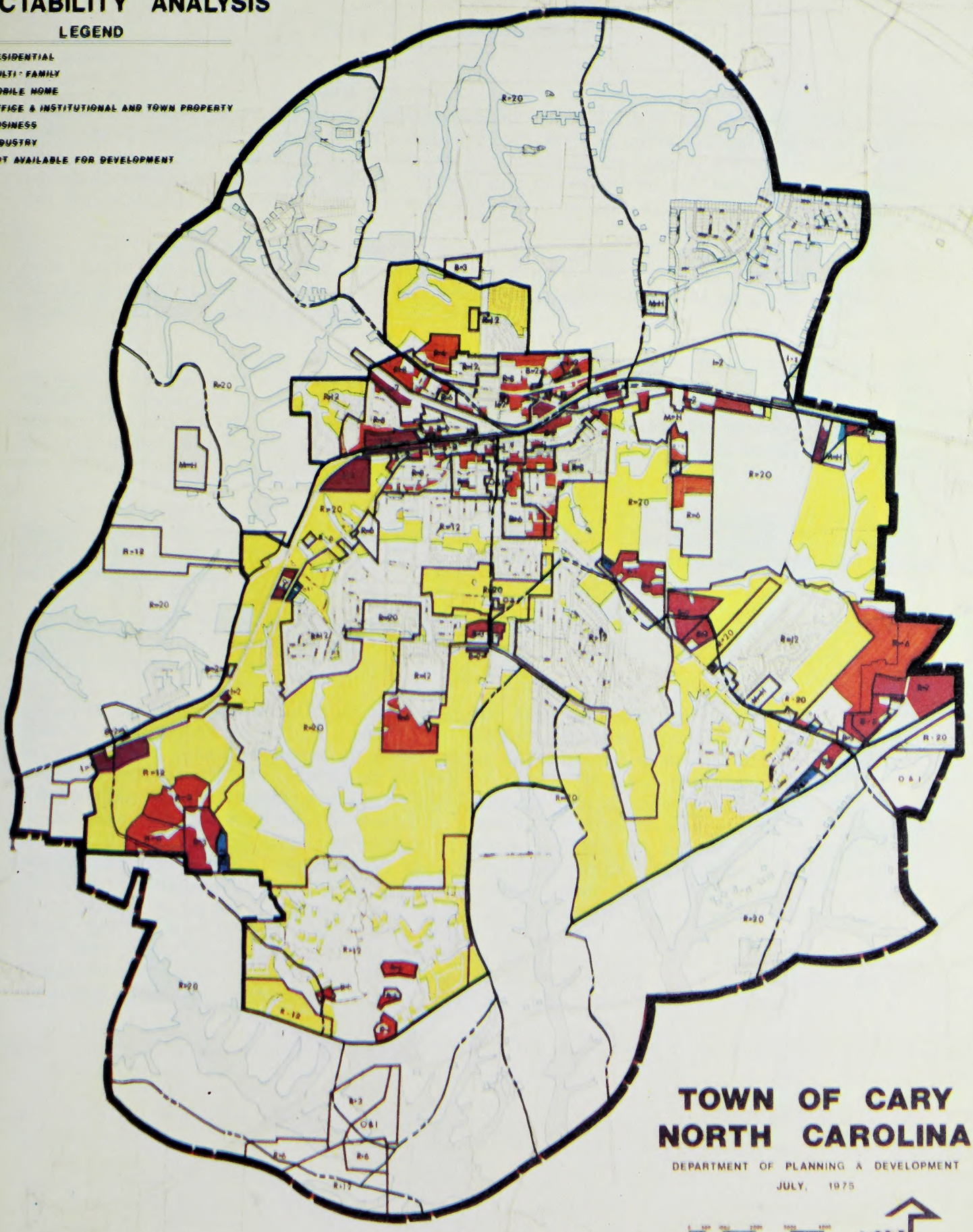
JULY, 1975

CARY PLANNING AREA

TRACTABILITY ANALYSIS

LEGEND

- RESIDENTIAL
- MULTI - FAMILY
- MOBILE HOME
- OFFICE & INSTITUTIONAL AND TOWN PROPERTY
- BUSINESS
- INDUSTRY
- NOT AVAILABLE FOR DEVELOPMENT



TOWN OF CARY
NORTH CAROLINA

DEPARTMENT OF PLANNING & DEVELOPMENT

JULY, 1975

RESEARCH AND PROCEDURES

Following the development and assessment of the tractibility map, the department found it necessary to conduct research and mathematical calculations into certain statistical figures for each watershed to obtain constants that would be utilized throughout this study. These are outlined as follows, and were used for calculating population projections for each watershed.

(a) Present average occupancy rate is the number of people per dwelling unit jurisdiction wide. You derive at this figure by dividing the population of our jurisdiction by the number of developed residential units, thus giving a present average occupancy rate of 3.0 people/unit.

(b) Present density of residential units per developed residential acre per watershed is determined by taking the number of existing units and dividing by the number of developed acres. This figure will differ for each watershed depending on the amount of development that has occured. Two densities were figured, one for urban conditions and one for rural conditions. Both are based on existing zoning and zoning requirements outlined by the Town.

(c) Present available gross residential acres for the 1980 population projections were determined for each watershed by subtracting the commercially zoned land. Here again, this figure will vary according to the size watershed and acres of commercial land.

(d) Present available gross residential acres for the population capability projections were determined for each watershed by subtracting the alluvial acres, developed acres and non-residential zoned acres.

The problem now came to determining how much development occured over a mean or designated period of time. Furthermore, it was important to know how much building took place in terms of acres so an anticipated quantity of development could be projected for a measured length of time. We also had the problem of determining how far back to trace development trends to obtain qualified figures. To do this, we referred to the building permits from which any previous residential use could be obtained over any number of years. Also, by knowing the watershed boundaries and street locations on the building permits, the amount of development could be determined by watershed. We calculated that an accurate mean development trend would be to use information from building permits over the last five years. (June 1969 - June 1975). The reason being 1), it was during this period of time that Cary experienced its greatest increase in growth, and 2), there was a good fluctuation in the economy over this period of time which created a balance in accelerated growth patterns and decelerated growth patterns.

1980 PROJECTIONS

Based on our land use assessment and research to establish certain constants for calculating population, we could now monitor the pattern of Cary's population and, since our figures are based on a five year development period, all population projections are figured on a five year increment. The following facts and figures are based on a projected population within the jurisdiction of Cary (all land within a one (1) mile limit of the Town Limits, including the Town), indicating the anticipated population by 1980 for each watershed which can be tabulated to produce a total projected population.

First, a brief outline of the formula will be discussed and then data sheets following for each watershed will show the results according to the formula.

Distribution determinations were established first from the previous land use assessment and research as follows:

(a) available gross acres per watershed
(b) number of units built in the last five years per watershed
(c) the rural and urban residential density per watershed
(d) available urban residential acres per watershed
(e) occupancy rate, and
(f) five year development volume in acres per watershed; that is obtained by dividing the number of dwelling units built in a watershed over the last five years by the residential density of the same watershed.
(g) existing population per watershed

Based on past development trends, we assumed a continued development trend for the next five years as had occured over the previous five years. With this information, we obtain a percentage of the watershed that developed over the last five years. This percentage is termed as the growth factor for a particular watershed and is calculated by:

(1) $\frac{\text{available gross acres}}{\text{development volume}}$ = growth factor

Taking this growth factor along with the available residential acreage for urban and rural conditions, we can obtain the acres anticipated for development for the next five years by calculating:

(2) growth factor x available residential acreage = anticipated acres of development

Now taking the residential density (urban and rural), the number of dwelling units is derived for the next five years by calculating:

(3) anticipated acres of development x residential density = anticipated dwelling units

The anticipated number of people is then arrived by calculating:

(4) anticipated dwelling units x occupancy rate (3.0) = potential population/ watershed

From which the total projected population is determined by:

(5) potential population + existing population = total projected population

By subtracting the 1975 population (18,308 in planning area) from the 1980 anticipated population (22,460 in planning area), there is an expected increase of 4,152 people within Cary's planning jurisdiction by 1980.

If we take the anticipated population for each watershed and the 4,152 expected population increase, we can calculate a percentage increase as follows:

(6) $$\frac{\text{Anticipated population (for each watershed)}}{\text{4,152 (expected population increase)}} = \%\ \text{increase}$$

This "percent increase" indicates what portion of the expected 4,152 population will occupy a particular watershed.

As was previously stated, each watershed was studied and carried through the formula. On the following pages are the results for each watershed and narrative explaining the conditions surrounding the results.

Each segment of the watershed is outlined and defined for a better understanding as the reader studies the results.

(a) available gross acres - includes all acreage of developed and non-developed land and alluvial soils while the commercially zoned land is subtracted from each watershed.

(b) number of units built since June 1969 - all units built between June 1969 and June 1975 as determined by building permits.

(c) urban residential density - number of units per acre in a sewerable condition as per the sewer capability map.

(d) rural residential density - number of units per acre in a non-sewerable condition as per the sewer capability map.

(e) previous five (5) year development volume - the same as (f) on page 10.

(f) present available urban residential acres - those acres undeveloped for residential use and exclude alluvial soils and commercially zoned land.

(g) urban growth factor - the percentage of land developed over the previous five years under urban conditions.

(h) present available rural residential acres - those acres undeveloped for residential use, excluding alluvial soils and commercially zoned land.

(i) rural growth factor - the percentage of land developed over the previous five years under rural conditions.

(j) anticipated acres of development - the urban and rural acres added together after using step # 2 on page 10 for each condition.

(k) anticipated units - the number of units for urban and rural projections within a watershed as derived under step # 3, page 10.

(l) anticipated population - the number of persons expected, by using Step # 4, page 10 for each watershed.

(m) present population - the number of people now living in the watershed within the jurisdiction of Cary.

(n) 1980 projected population - is the total number of people projected to be living in the watershed by 1980, and

(o) percent increase - is what percent of the total population increase, which is 4,152, will occupy a particular watershed by 1980. See Step # 6, page 11.

WATERSHED #1: UPPER CRABTREE CREEK

AVAILABLE GROSS RESIDENTIAL ACRES	840.45
NUMBER OF UNITS BUILT SINCE JUNE 1969	18
URBAN RESIDENTIAL DENSITY	3.21
RURAL RESIDENTIAL DENSITY	2.17
PREVIOUS FIVE (5) YEAR DEVELOPMENT VOLUME	5.61
PRESENT AVAILABLE URBAN RESIDENTIAL ACRES	27.16
URBAN GROWTH FACTOR	17%
PRESENT AVAILABLE RURAL RESIDENTIAL ACRES	611.04
RURAL GROWTH FACTOR	0%
ANTICIPATED ACRES OF DEVELOPMENT	4.48
ANTICIPATED UNITS	14
ANTICIPATED POPULATION	42
PRESENT POPULATION	589
1980 PROJECTED POPULATION	631
PERCENT INCREASE	1%

This watershed is located on the west side of Cary with the noted areas of this watershed being Hi-House Mobile Home Park, Triangle Forest, and part of Cedar Creed Subdivision. Only a small number of residential acres are urban (27.16) while the rest is rural (611.04). All the units built in the last five years were in the urban portion, therefore, any projected increases would only occur in the urban area, which is verified by the 17% growth factor while in the rural area, there is no growth factor. There is a small tract (approximately 40 acres) zoned B-2 in this watershed. At present, the outlook for future population increases may be limited due to the watershed being in the Triassic Basin which has mostly poor soil. This affects septic tanks and well suitability. The feasibility for sewer is limited because of the lack of interceptors located in the watershed which means pumping stations would have to be used and the cost to install an entire sewer system would be a large economic investment. This does not mean this is not a potential development area, but there would have to be extra requirements and expenses involved for this area to develop as urban.

WATERSHED #2: COLES BRANCH

AVAILABLE GROSS RESIDENTIAL ACRES	1,031.45
NUMBER OF UNITS BUILT SINCE JUNE 1969	140
URBAN RESIDENTIAL DENSITY	3.75
RURAL RESIDENTIAL DENSITY	2.17
PREVIOUS FIVE (5) YEAR DEVELOPMENT VOLUME	37.33
PRESENT AVAILABLE URBAN RESIDENTIAL ACRES	74.76
URBAN GROWTH FACTOR	19%
PRESENT AVAILABLE RURAL RESIDENTIAL ACRES	658.48
RURAL GROWTH FACTOR	0%
ANTICIPATED ACRES OF DEVELOPMENT	14.54
ANTICIPATED UNITS	55
ANTICIPATED POPULATION	165
PRESENT POPULATION	1,208
1980 PROJECTED POPULATION	1,373
PERCENT INCREASE	4%

This watershed is located on the northwest side of Cary with the noted areas of this watershed being Oakwood Heights, Sunset Hills, and a small portion of old Cary. Only a small number of residential acres are urban (74.76) while the rest is rural (658.48). All units built in the last five years were in the urban portion, therefore, any projected increase would only occur in this area and the growth factor (19%) for urban conditions reflects this as compared to no growth factor for rural. There are some sixty (60) acres zoned I-2 in this watershed. This watershed has somewhat of the same problem as watershed #1. Some of the watershed is in the triassic basin with great expense being needed to provide sewer and water. Population growth in this area is feasible, but here great care has to be taken in planning because of the physical land conditions.

WATERSHED #3: CRABTREE CREEK TRIBUTARY - 6

AVAILABLE GROSS RESIDENTIAL ACRES	424.70
NUMBER OF UNITS BUILT SINCE JUNE 1969	8
URBAN RESIDENTIAL DENSITY	0
RURAL RESIDENTIAL DENSITY	2.17
PREVIOUS FIVE (5) YEAR DEVELOPMENT VOLUME	3.69
PRESENT AVAILABLE URBAN RESIDENTIAL ACRES	0
URBAN GROWTH FACTOR	0%
PRESENT AVAILABLE RURAL RESIDENTIAL ACRES	331.04
RURAL GROWTH FACTOR	1%
ANTICIPATED ACRES OF DEVELOPMENT	2.87
ANTICIPATED UNITS	6
ANTICIPATED POPULATION	18
PRESENT POPULATION	183
1980 PROJECTED POPULATION	201
PERCENT INCREASE	0%

This watershed is located on the northwest side of Cary with Hazelwood Subdivision being the only notable area in this watershed. All of the land in this watershed is residential and rural. There were a few homes built over the last five years and subsequently the growth factor reflects a population increase under rural conditions. This watershed falls in much the same category as Watersheds #1 and #2. Because of the soil conditions and lack of sewerability, there may be a hindrance as to how fast this area may progress as far as population is concerned.

WATERSHED #4: BLACK CREEK

AVAILABLE GROSS RESIDENTIAL ACRES	1,727.97
NUMBER OF UNITS BUILT SINCE JUNE 1969	159
URBAN RESIDENTIAL DENSITY	4.14
RURAL RESIDENTIAL DENSITY	2.17
PREVIOUS FIVE (5) YEAR DEVELOPMENT VOLUME	37.44
PRESENT AVAILABLE URBAN RESIDENTIAL ACRES	191.67
URBAN GROWTH FACTOR	10%
PRESENT AVAILABLE RURAL RESIDENTIAL ACRES	1,192.17
RURAL GROWTH FACTOR	0%
ANTICIPATED ACRES OF DEVELOPMENT	19.85
ANTICIPATED UNITS	82
ANTICIPATED POPULATION	246
PRESENT POPULATION	912
1980 PROJECTED POPULATION	1,158
PERCENT INCREASE	6%

This watershed is located in the north section of Cary, with the most prominent areas being Northwoods, Dogwood Estates, most of old Cary, and the new Town Hall site. Compared to the total amount of residential acres, only a small portion is urban residential acres. Only 4 out of the 159 houses built were outside the urban area. The result was all population projects being concentrated in the urban area, and none anticipated in the rural area. Contrary to what is predicted, this watershed is seen as the next area to have the greatest expansion if the Crabtree sewage outfall is built as expected. The watershed is outside the triassic basin which helps to relieve many problems. This is a highly potential area with respect to future growth and population expansion. Septic tanks and wells are well situated for this watershed.

WATERSHED #5: REEDY CREEK

AVAILABLE GROSS RESIDENTIAL ACRES	1,080.12
NUMBER OF UNITS BUILT SINCE JUNE 1969	291
URBAN RESIDENTIAL DENSITY	0
RURAL RESIDENTIAL DENSITY	2.17
PREVIOUS FIVE (5) YEAR DEVELOPMENT VOLUME	134.10
PRESENT AVAILABLE URBAN RESIDENTIAL ACRES	0
URBAN GROWTH FACTOR	0%
PRESENT AVAILABLE RURAL RESIDENTIAL ACRES	725.67
RURAL GROWTH FACTOR	12%
ANTICIPATED ACRES OF DEVELOPMENT	90.09
ANTICIPATED UNITS	195
ANTICIPATED POPULATION	585
PRESENT POPULATION	1,080
1980 PROJECTED POPULATION	1,665
PERCENT INCREASE	14%

This watershed is located on the northeast side of Cary, with the only notable developed area being Medfield Estates. This watershed is all rural in nature with no urban areas. There is some 84 acres of I-2 and I-1, zoning in this watershed. This is another watershed that has high potential as a future growth area. The soils are good and sewerability is dependent on the Crabtree outfall being installed. Again, septic tanks and wells are highly desirable in this watershed.

WATERSHED #6: JOHNSON CREEK

AVAILABLE GROSS RESIDENTIAL ACRES	1,878.01
NUMBER OF UNITS BUILT SINCE JUNE 1969	978
URBAN RESIDENTIAL DENSITY	5.53
RURAL RESIDENTIAL DENSITY	2.17
PREVIOUS FIVE (5) YEAR DEVELOPMENT VOLUME	175.95
PRESENT AVAILABLE URBAN RESIDENTIAL ACRES	639.35
URBAN GROWTH FACTOR	10%
PRESENT AVAILABLE RURAL RESIDENTIAL ACRES	22.27
RURAL GROWTH FACTOR	0%
ANTICIPATED ACRES OF DEVELOPMENT	65.41
ANTICIPATED UNITS	362
ANTICIPATED POPULATION	1,086
PRESENT POPULATION	5,069
1980 PROJECTED POPULATION	6,155
PERCENT INCREASE	26%

This watershed is located on the east side of Cary, and is the first of three watersheds that have the larger portion of Cary's population. Some of the areas to be noted in this watershed are Walnut Hills, South Hills Shopping Center, Mobile Estates, Irongate, and Urban Terrace. Almost the entire available residential acres in this watershed are urban (639.35), while only a small area (22.27) is rural. As far as projected populations, this watershed could see a high increase in population and dwelling units. This watershed also has the largest concentration of commercially zoned land of any watershed within the jurisdiction of Cary.

WATERSHED #7: SWIFT CREEK TRIBUTARY - 5

AVAILABLE GROSS RESIDENTIAL ACRES	1,763.32
NUMBER OF UNITS BUILT SINCE JUNE 1969	455
URBAN RESIDENTIAL DENSITY	2.93
RURAL RESIDENTIAL DENSITY	2.17
PREVIOUS FIVE (5) YEAR DEVELOPMENT VOLUME	153.58
PRESENT AVAILABLE URBAN RESIDENTIAL ACRES	586.62
URBAN GROWTH FACTOR	13%
PRESENT AVAILABLE RURAL RESIDENTIAL ACRES	453.40
RURAL GROWTH FACTOR	0%
ANTICIPATED ACRES OF DEVELOPMENT	76.04
ANTICIPATED UNITS	223
ANTICIPATED POPULATION	669
PRESENT POPULATION	2,805
1980 PROJECTED POPULATION	3,474
PERCENT INCREASE	16%

This watershed is located on the southeast side of Cary. Some of the areas to be noted here are Greenwood Forest, Tanglewood, Greenwood Acres, Pirates Cove, Hillsdale Forest, and part of Stoneybrook. This watershed is almost split even on the amount of urban and rural residential land, and has the third largest population. Out of the 455 units built in the last five years, only 5 were not in an urban area. For this reason, all the anticipated population increase is concentrated in the urban area, which includes everything on the north side of U.S. 1 and 64 bypass within this watershed. There is a small amount of commercially zoned land within this area.

WATERSHED #8: SWIFT CREEK TRIBUTARY - 6

AVAILABLE GROSS RESIDENTIAL ACRES	848.94
NUMBER OF UNITS BUILT SINCE JUNE 1969	13
URBAN RESIDENTIAL DENSITY	2.17
RURAL RESIDENTIAL DENSITY	2.17
PREVIOUS FIVE (5) YEAR DEVELOPMENT VOLUME	5.07
PRESENT AVAILABLE URBAN RESIDENTIAL ACRES	116.85
URBAN GROWTH FACTOR	3%
PRESENT AVAILABLE RURAL RESIDENTIAL ACRES	467.17
RURAL GROWTH FACTOR	0
ANTICIPATED ACRES OF DEVELOPMENT	3.42
ANTICIPATED UNITS	7
ANTICIPATED POPULATION	21
PRESENT POPULATION	245
1980 PROJECTED POPULATION	266
PERCENT INCREASE	1%

This watershed is located south of Cary, and is basically undeveloped. A portion of Kildaire Farms occupies this watershed and covers most of the 116.85 available urban residential land. The larger portion of the watershed is rural, with little or no development. There is no commercially zoned land at present in this watershed. All units built have been in Kildaire Farms. It is expected that this development will be the major contributor to any population increase in this watershed over the next five years.

WATERSHED #9: SWIFT CREEK

AVAILABLE GROSS RESIDENTIAL ACRES	328.97
NUMBER OF UNITS BUILT SINCE JUNE 1969	0
URBAN RESIDENTIAL DENSITY	0
RURAL RESIDENTIAL DENSITY	2.17
PREVIOUS FIVE (5) YEAR DEVELOPMENT VOLUME	0
PRESENT AVAILABLE URBAN RESIDENTIAL ACRES	0
URBAN GROWTH FACTOR	0%
PRESENT AVAILABLE RURAL RESIDENTIAL ACRES	148.30
RURAL GROWTH FACTOR	0%
ANTICIPATED ACRES OF DEVELOPMENT	0
ANTICIPATED UNITS	0
ANTICIPATED POPULATION	0
PRESENT POPULATION	39
1980 PROJECTED POPULATION	39
PERCENT INCREASE	0%

This watershed is located in the southernmost portion of Cary's jurisdiction. There are no specific areas of notability in this watershed, or are there any commercially zoned areas. This particular watershed is the upper reaches of Swift Creek, which is also proposed to have a sewer outfall. At present, this is in the distant future, however, when and if such a system is installed, this would open up all the watersheds in the southern half of Cary's jurisdiction as being potentially sewerable and under urban conditions.

WATERSHED #10: SWIFT CREEK TRIBUTARY - 7

AVAILABLE GROSS RESIDENTIAL ACRES	2,839.07
NUMBER OF UNITS BUILT SINCE JUNE 1969	939
URBAN RESIDENTIAL DENSITY	4
RURAL RESIDENTIAL DENSITY	2.17
PREVIOUS FIVE (5) YEAR DEVELOPMENT VOLUME	234.75
PRESENT AVAILABLE URBAN RESIDENTIAL ACRES	1,317.03
URBAN GROWTH FACTOR	8%
PRESENT AVAILABLE RURAL RESIDENTIAL ACRES	113.87
RURAL GROWTH FACTOR	0%
ANTICIPATED ACRES OF DEVELOPMENT	110.09
ANTICIPATED UNITS	440
ANTICIPATED POPULATION	1,320
PRESENT POPULATION	1,063
1980 PROJECTED POPULATION	7,383
PERCENT INCREASE	32%

This watershed is located in the southwest section of Cary, and is the largest watershed in Cary's jurisdiction. This is reflected in the amount of development that has taken place here in the last five years and what is expected in the next five years. The largest concentration of our population is in this watershed, and incompasses residential developments from West Chatham Street south, to include MacGregor Downs, and between Kildaire Farm Road and Old 64, which includes most of Kildaire Farms, all of Scottish Hills and Russell Hills, to name a few. The second largest concentration of commercial land is also located in this area. As indicated in the projected population for 1980, this watershed should have the greatest increase in the number of people.

WATERSHED #11: UPPER SWIFT CREEK

AVAILABLE GROSS RESIDENTIAL ACRES	919.21
NUMBER OF UNITS BUILT SINCE JUNE 1969	1
URBAN RESIDENTIAL DENSITY	2.17
RURAL RESIDENTIAL DENSITY	2.17
PREVIOUS FIVE (5) YEAR DEVELOPMENT VOLUME	0
PRESENT AVAILABLE URBAN RESIDENTIAL ACRES	102.39
URBAN GROWTH FACTOR	0%
PRESENT AVAILABLE RURAL RESIDENTIAL ACRES	714.41
RURAL GROWTH FACTOR	0%
ANTICIPATED ACRES OF DEVELOPMENT	0
ANTICIPATED UNITS	0
ANTICIPATED POPULATION	0
PRESENT POPULATION	54
1980 PROJECTED POPULATION	54
PERCENT INCREASE	0%

This watershed is located in the most southwest portion of Cary's jurisdiction. It does encompass a small section of MacGregor Downs in the southwest section. Other than this, the watershed is rural. At present, there is no expected increase in population for this watershed, and it will be very much dependent on the Swift Creek outfall. There is a small amount of commercially zoned land, but there is no sewer and water available for such development at present.

WATERSHED #12: SWIFT CREEK TRIBUTARY - 4

AVAILABLE GROSS RESIDENTIAL ACRES	323.92
NUMBER OF UNITS BUILT SINCE JUNE 1969	0
URBAN RESIDENTIAL DENSITY	0
RURAL RESIDENTIAL DENSITY	2.17
PREVIOUS FIVE (5) YEAR DEVELOPMENT VOLUME	0
PRESENT AVAILABLE URBAN RESIDENTIAL ACRES	0
URBAN GROWTH FACTOR	0%
PRESENT AVAILABLE RURAL RESIDENTIAL ACRES	241.51
RURAL GROWTH FACTOR	0%
ANTICIPATED ACRES OF DEVELOPMENT	0
ANTICIPATED UNITS	0
ANTICIPATED POPULATION	0
PRESENT POPULATION	61
1980 PROJECTED POPULATION	61
PERCENT INCREASE	0%

This watershed is located at the southeast section of Cary's jurisdiction, and at present is completely rural and basically undeveloped, except for some scattered homes in the area. Only marginal population increases are expected in this watershed for the next five years.

CARY PLANNING AREA

1980 PROJECTED POPULATION BY WATERSHEDS

distribution determinations
available gross residential acres
number of units built since june 1969
urban residential density
5 year development volume in acres
present available urban residential acres
occupancy rate

dev. volume x avail gross res. ac. s growth factor
avail. urb. res. ac. x growth factor s antic. ac. of dev.
antic. ac. of dev. x urb. res. density s antic. units
antic. units x occupancy rate s antic. population
avail. rural res. ac. x growth factor s antic. ac. of dev.
antic. ac. of dev. x rural res. density s antic. units
antic. units x occupancy rate s antic. population
total antic. pop. + present pop. s 1980 proj. pop.
total antic. pop. + 4152 s percent

present pop. for cary's jurisdiction s 18,308
total population projection s 22,460

#3
watershed: crabtree creek tributary - 6

available gross residential acres	424.70
no. of units built since june 1969	8
urban residential density	0
rural residential density	2.17
anticipated 5 year development volume	3.69
present available urban residential acres	0
growth factor	0%
present available rural residential acres	331.04
growth factor	1%
anticipated acres of development	2.87
anticipated units	1
anticipated population	18
present population	183
1980 projected population	201
percent increase	9%

#4
watershed: black creek

available gross residential acres	1927.97
no. of units built since june 1969	159
urban residential density	4.14
rural residential density	2.17
anticipated 5 year development volume	39.28
present available urban residential acres	37.44
growth factor	10%
present available rural residential acres	1192.17
growth factor	0%
anticipated acres of development	19.85
anticipated units	82
anticipated population	246
present population	912
1980 projected population	1158
percent increase	48

#5
watershed: reedy creek

available gross residential acres	1080.12
no. of units built since june 1969	291
urban residential density	0
rural residential density	2.17
anticipated 5 year development volume	134.10
present available urban residential acres	0
growth factor	0%
present available rural residential acres	795.69
growth factor	12%
anticipated acres of development	90.09
anticipated units	195
anticipated population	585
present population	1080
1980 projected population	1665
percent increase	54%

#2
watershed: colee branch

available gross residential acres	1051.45
no. of units built since june 1969	140
urban residential density	3.75
rural residential density	2.17
anticipated 5 year development volume	27.33
present available urban residential acres	14.76
growth factor	10%
present available rural residential acres	659.48
growth factor	0%
anticipated acres of development	14.34
anticipated units	55
anticipated population	165
present population	1208
1980 projected population	1373
percent increase	6%

#6
watershed: johnson creek

available gross residential acres	1855.87
no. of units built since june 1969	995
urban residential density	5.53
rural residential density	2.17
anticipated 5 year development volume	175.95
present available urban residential acres	639.35
growth factor	10%
present available rural residential acres	22.27
growth factor	0%
anticipated acres of development	65.41
anticipated units	362
anticipated population	1086
present population	5069
1980 projected population	6155
percent increase	21%

#1
watershed: upper crabtree creek

available gross residential acres	840.47
no. of units built since june 1969	18
urban residential density	3.21
rural residential density	2.17
5 year development volume	5.61
available urban residential acres	27.16
factor	15%
available rural residential acres	631.06
factor	0%
acres of development	4.48
anticipated units	14
anticipated population	42
present population	589
1980 projected population	631
percent increase	1%

#10
watershed: swift creek tributary - 7

gross residential acres	2859.07
of units built since june 1969	959
urban residential density	4
rural residential density	2.17
ticipated 5 year development volume	234.75
esent available urban residential acres	1019.03
factor	8%
available rural residential acres	313.87
factor	0%
acres of development	110.09
units	660
population	1340
ation	8063
ted population	7383
ent increase	10%

#11
watershed: upper swift creek

gross residential acres	939.21
to built since june 1969	2
urban residential density	2.17
rural residential density	2.17
anticipated 5 year development volume	0
present available urban residential acres	102.79
growth factor	0%
available rural residential acres	732.41
factor	0%
ed acres of development	0
ed units	0
ed population	0
population	54
ected population	54
increase	0%

#7
watershed: swift creek tributary - 5

available gross residential acres	1761.34
no. of units built since june 1969	455
urban residential density	2.93
rural residential density	2.17
anticipated 5 year development volume	156.34
present available urban residential acres	586.62
growth factor	10%
present available rural residential acres	433.40
growth factor	0%
anticipated acres of development	76.04
anticipated units	223
anticipated population	690
present population	2803
1980 projected population	3421
percent increase	22%

#12
watershed: swift creek tributary - 4

available gross residential acres	323.92
no. of units built since june 1969	0
urban residential density	0
rural residential density	0.17
anticipated 5 year development volume	0
present available urban residential acres	0
growth factor	0%
present available rural residential acres	243.51
growth factor	0%
anticipated acres of development	0
anticipated units	0
anticipated population	0
present population	61
1980 projected population	61
percent increase	0%

#9
watershed: swift creek

available gross residential acres	539.97
no. of units built since june 1969	0
urban residential density	0
rural residential density	2.17
anticipated 5 year developments volume	0
present available urban residential acres	0
growth factor	0%
present available rural residential acres	468.30
growth factor	0%
anticipated acres of development	0
anticipated units	0
anticipated population	0
present population	39
1980 projected population	39
percent increase	0%

#8
watershed: swift creek tributary

available gross residential acres	868.94
no. of units built since june 1969	33
urban residential density	3.77
rural residential density	2.17
anticipated 5 year developments volume	11.07
present available urban residential acres	116.85
growth factor	5%
present available rural residential acres	667.17
growth factor	0%
anticipated acres of development	5.42
anticipated units	7
anticipated population	21
present population	243
1980 projected population	266
percent increase	9%

TOWN OF CARY
NORTH CAROLINA

DEPARTMENT OF PLANNING & DEVELOPMENT

JULY, 1975

0 500 1000 2000 3000 4000
SCALE IN FEET

NORTH

1980 POPULATION SUMMARY

In summarizing the 1980 population projections, it is evident that the majority of development and concentrated population occurred in the southern half of Cary. If, and when, the Crabtree and Swift Creek outfalls are installed, the potential increase in population could double in the north and south. It also has to be pointed out, because of Cary's location, Raleigh on the east, Apex to the southwest; and the airport, Umstead Park and Morrisville on the northwest side, there is a limited amount of expansion available. When you consider that the west side of Cary is contiguous with poor soils of the triassic basin, this complicates problems more. With these projections, each year and thereafter, the Planning Department can plan for future growth and assure adequate provisions are made to utilize land in the proper manner with respect to population increases. From all the research in this first 1980 projection, it has been predicted by 1980, 22,460 people will live in Cary and its extraterritorial limits. This will mean an additional 1,384 units and 386.79 acres of development beyond the present figures.

POPULATION CAPABILITIES

The second population study made, was to determine the population capability of Cary's jurisdiction without new sewer and water lines being extended into rural areas, thus working with the maximum capability that the land could support at full development. Again, certain information was needed some of which has already been determined in the first formula outline.

We again started with the gross acres of a watershed, but this time, since we are determining the maximum future development capability under present conditions, we subtract the flood plains, all developed acres, and all commercial zoning acres to derive the net available residential acres for future development. This was further broken down into urban and rural residential acres, again based on sewerability as the factor determining urban land areas. Also indicated in the data information needed was the following:

(a) the existing number of dwelling units per watershed

(b) the existing number of residential acres per watershed

(c) the urban residential density

(d) the rural residential density which would be different from the first study because the Wake County Health Department requires 30,000 square feet per lot for septic tank and wells instead of 20,000 square feet, and

(e) the occupancy rate (person/unit)

Along with the above information, there was one additional figure that would be needed to proceed with the population capability study. The additional information needed was the maximum development capability. We define this as being the total allowable percentage of land that would be used for residential use only. This figure is based on planning criteria used by planners in deriving acreage for residential use. On the average, 80-90 acres of land is designated as neighborhood for residential dwelling units. When utilities, roads, public and private services, schools, recreation and open space requirements, alluvial soils, surface water, and commercial uses are added, there is an expected 140 acres that comprise a single neighborhood. On this basis, dividing the residential acreage by the total acreage of the neighborhood, the maximum residential development capability averages 65%, which is the figure used for the maximum residential development factor.

The formula is basically the same as the 1980 projection, with the exception of the maximum residential development factor. The procedure for calculating the population capability is as follows:

available urban residential acres x maximum residential development factor = maximum development capability.

development capability x urban residential density = potential units

potential units x occupancy rate = potential population (urban)

At this point in the formula the procedure is repeated, using the available rural acres and the rural residential density to determine a potential population under rural conditions, then the figures for each watershed were combined to figure the total population capability within the present jurisdiction of Cary, which amounted to 58,626 people. We could expect an additional 13,439 dwelling units, excluding the number of units that are now developed and would utilize 5,656.02 more residential acres.

The population capability study was advanced one step further with the condition being; if new sewer and water lines were extended to the point where all rural developable land within Cary's jurisdiction was urban, what would be the maximum population capability. The formula used was identical to the one used above, the only difference being all available land within Cary's jurisdiction was considered under urban conditions. We found that 80,897 people could be supported on the land available and we could add 20,863 units to our present number of units and utilize an additional 5,656.58 acres.

On the following pages are the watershed sheets used in projecting population capabilities and maximum population capabilities. These sheets break down by watershed, the sewerability conditions mentioned previously for population capability. Most of the headings are self-explanatory, but a few points should be reemphasized:

(a) the urban and rural residential acres are the same figures used in the 1980 projections.

(b) the existing number of residential units are the total residential units now occupying a particular watershed.

(c) the existing number of residential acres developed is all land that is presently being used for residential use, whether it be single-family or multi-family development.

WATERSHED # 2: COLES BRANCH

Total population capability if no new sewer and water lines are extended into present rural areas:

GROSS ACRES		1,092.29
MINUS:	ALLUVIAL SOIL	157.94
	DEVELOPED ACRES	140.27
	NON-RESIDENTIAL ZONED ACRES	60.84
	TOTALS	733.24

URBAN RESIDENTIAL ACRES (SEWERED)	74.76
RURAL RESIDENTIAL ACRES (NON-SEWERED)	658.48
EXISTING NUMBER OF UNITS	393
EXISTING RESIDENTIAL ACRES DEVELOPED	85.78
URBAN RESIDENTIAL DENSITY	3.75
RURAL RESIDENTIAL DENSITY	1.5
OCCUPANCY RATE	3.0
MAXIMUM DEVELOPMENT CAPABILITY	475.60
POTENTIAL UNITS	824
POTENTIAL POPULATION	2,472
EXISTING POPULATION	1,208
POPULATION CAPABILITY	3,680

Total population capability if watershed is totally urban which means the extension of water and sewer lines to all rural lands:

URBAN RESIDENTIAL DENSITY	3.75
URBAN RESIDENTIAL ACREAGE	733.24
MAXIMUM DEVELOPMENT CAPABILITY	476.61
POTENTIAL UNITS	1,787
POTANTIAL POPULATION	5,361
EXISTING POPULATION	1,208
TOTAL POPULATION CAPABILITY	6,569

WATERSHED # 3: CRABTREE CREEK TRIBUTARY - 6

Total population capability if no new sewer and water lines are extended into present rural areas:

GROSS ACRES	424.70
MINUS: ALLUVIAL SOIL	39.72
DEVELOPED ACRES	53.95
NON-RESIDENTIAL ZONED ACRES	0
TOTALS	331.04
URBAN RESIDENTIAL ACRES (SEWERED)	0
RURAL RESIDENTIAL ACRES (NON-SEWERED)	331.04
EXISTING NUMBER OF UNITS	61
EXISTING RESIDENTIAL ACRES DEVELOPED	31.37
URBAN RESIDENTIAL DENSITY	2.17
RURAL RESIDENTIAL DENSITY	1.5
OCCUPANCY RATE	3.0
MAXIMUM DEVELOPMENT CAPABILITY	215.18
POTENTIAL UNITS	323
POTENTIAL POPULATION	969
EXISTING POPULATION	183
POPULATION CAPABILITY	1,152

Total population capability if watershed is totally urban which meant the extension of water and sewer lines to all rural lands:

URBAN RESIDENTIAL DENSITY	2.17
URBAN RESIDENTIAL ACREAGE	331.04
MAXIMUM DEVELOPMENT CAPABILITY	215.18
POTENTIAL UNITS	467
POTENTIAL POPULATION	1,401
EXISTING POPULATION	183
TOTAL POPULATION CAPABILITY	1,584

WATERSHED # 4: BLACK CREEK

Total population capability if no new sewer and water lines are extended into present rural areas:

GROSS ACRES		1,752.07
MINUS:	ALLUVIAL SOIL	134.76
	DEVELOPED ACRES	209.37
	NON-RESIDENTIAL ZONED ACRES	24.10
	TOTALS	1,383.84
URBAN RESIDENTIAL ACRES (SEWERED)		191.67
RURAL RESIDENTIAL ACRES (NON-SEWERED)		1,192.17
EXISTING NUMBER OF UNITS		304
EXISTING RESIDENTIAL ACRES DEVELOPED		73.49
URBAN RESIDENTIAL DENSITY		4.14
RURAL RESIDENTIAL DENSITY		1.5
OCCUPANCY RATE		3.0
MAXIMUM DEVELOPMENT CAPABILITY		899.50
POTENTIAL UNITS		1,679
POTENTIAL POPULATION		5,035
EXISTING POPULATION		912
POPULATION CAPABILITY		5,947

Total population capability if watershed is totally urban which means the extension of water and sewer lines to all rural lands:

URBAN RESIDENTIAL DENSITY	4.14
URBAN RESIDENTIAL ACREAGE	1,383.84
MAXIMUM DEVELOPMENT CAPABILITY	899.50
POTENTIAL UNITS	3,723
POTENTIAL POPULATION	11,169
EXISTING POPULATION	912
TOTAL POPULATION CAPABILITY	12,081

WATERSHED # 5: REEDY CREEK

Total population capability if no new sewer and water lines are extended into present rural areas:

GROSS ACRES		1,233.24
MINUS:	ALLUVIAL SOIL	100.32
	DEVELOPED ACRES	322.77
	NON-RESIDENTIAL ZONED ACRES	84.48
	TOTALS	725.67

URBAN RESIDENTIAL ACRES (SEWERED)	0
RURAL RESIDENTIAL ACRES (NON-SEWERED)	725.67
EXISTING NUMBER OF UNITS	360
EXISTING RESIDENTIAL ACRES DEVELOPED	171.24
URBAN RESIDENTIAL DENSITY	2.17
RURAL RESIDENTIAL DENSITY	1.5
OCCUPANCY RATE	3.0
MAXIMUM DEVELOPMENT CAPABILITY	471.69
POTENTIAL UNITS	708
POTENTIAL POPULATION	2,124
EXISTING POPULATION	1,080
POPULATION CAPABILITY	3,204

Total population capability if watershed is totally urban which means the extension of water and sewer lines to all rural lands:

URBAN RESIDENTIAL DENSITY	2.17
URBAN RESIDENTIAL ACREAGE	725.67
MAXIMUM DEVELOPMENT CAPABILITY	471.69
POTENTIAL UNITS	1,024
POTENTIAL POPULATION	3,072
EXISTING POPULATION	1,080
TOTAL POPULATION CAPABILITY	4,152

WATERSHED # 6: JOHNSON CREEK

Total population capability if no new sewer and water lines are extended into present rural areas:

GROSS ACRES		2,081.73
MINUS:	ALLUVIAL SOIL	163.73
	DEVELOPED ACRES	1,025.48
	NON-RESIDENTIAL ZONED ACRES	225.90
	TOTALS	661.62
URBAN RESIDENTIAL ACRES (SEWERED)		639.35
RURAL RESIDENTIAL ACRES (NON-SEWERED)		22.27
EXISTING NUMBER OF UNITS		1,709
EXISTING RESIDENTIAL ACRES DEVELOPED		309.07
URBAN RESIDENTIAL DENSITY		5.53
RURAL RESIDENTIAL DENSITY		1.5
OCCUPANCY RATE		3.0
MAXIMUM DEVELOPMENT CAPABILITY		430.06
POTENTIAL UNITS		2,320
POTENTIAL POPULATION		6,960
EXISTING POPULATION		5,069
POPULATION CAPABILITY		12,029

Total population capability if watershed is titally urban which means the extension of water and sewer lines to all rural lands:

URBAN RESIDENTIAL DENSITY	5.53
URBAN RESIDENTIAL ACREAGE	661.62
MAXIMUM DEVELOPMENT CAPABILITY	430.05
POTENTIAL UNITS	2,378
POTENTIAL POPULATION	7,134
EXISTING POPULATION	5,069
TOTAL POPULATION CAPABILITY	12,203

WATERSHED # 7: SWIFT CREEK TRIBUTARY - 5

Total population capability if no new sewer and water lines are extended into present rural areas:

GROSS ACRES		1,809.69
MINUS:	ALLUVIAL SOIL	147.15
	DEVELOPED ACRES	576.15
	NON-RESIDENTIAL ZONED ACRES	46.37
	TOTALS	1,040.02

URBAN RESIDENTIAL ACRES (SEWERED)	586.62
RURAL RESIDENTIAL ACRES (NON-SEWERED)	453.62
EXISTING NUMBER OF UNITS	935
EXISTING RESIDENTIAL ACRES DEVELOPED	319.52
URBAN RESIDENTIAL DENSITY	2.93
RURAL RESIDENTIAL DENSITY	1.5
OCCUPANCY RATE	3.0
MAXIMUM DEVELOPMENT CAPABILITY	676.01
POTENTIAL UNITS	1,559
POTENTIAL POPULATION	4,677
EXISTING POPULATION	2,805
POPULATION CAPABILITY	7,482

Total population capability if watershed is totally urban which means the extension of water and sewer lines to all rural lands:

URBAN RESIDENTIAL DENSITY	2.93
URBAN RESIDENTIAL ACREAGE	1,040.02
MAXIMUM DEVELOPMENT CAPABILITY	676.01
POTENTIAL UNITS	1,980
POTENTIAL POPULATION	5,940
EXISTING POPULATION	2,805
TOTAL POPULATION CAPABILITY	8,745

WATERSHED # 8: SWIFT CREEK TRIBUTARY - 6

Total population capability if no new sewer and water lines are extended into present rural areas:

GROSS ACRES		848.94
MINUS:	ALLUVIAL SOIL	170.57
	DEVELOPED ACRES	94.35
	NON-RESIDENTIAL ZONED ACRES	0
	TOTALS	584.02

URBAN RESIDENTIAL ACRES (SEWERED)	116.85
RURAL RESIDENTIAL ACRES (NON-SEWERED)	467.17
EXISTING NUMBER OF UNITS	64
EXISTING RESIDENTIAL ACRES DEVELOPED	32.60
URBAN RESIDENTIAL DENSITY	2.17
RURAL RESIDENTIAL DENSITY	1.5
OCCUPANCY RATE	3.0
MAXIMUM DEVELOPMENT CAPABILITY	379.61
POTENTIAL UNITS	620
POTENTIAL POPULATION	1,860
EXISTING POPULATION	245
POPULATION CAPABILITY	2,105

Total population capability if watershed is totally urban which means the extension of water and sewer lines to all rural lands:

URBAN RESIDENTIAL DENSITY	2.17
URBAN RESIDENTIAL ACREAGE	584.02
MAXIMUM DEVELOPMENT CAPABILITY	1,267.32
POTENTIAL UNITS	2,750
POTENTIAL POPULATION	8,250
EXISTING POPULATION	245
TOTAL POPULATION CAPABILITY	8,495

WATERSHED # 9: SWIFT CREEK

Total population capability if no new sewer and water lines are extended into present rural areas.

GROSS ACRES		328.97
MINUS:	ALLUVIAL SOIL	171.72
	DEVELOPED ACRES	8.95
	NON-RESIDENTIAL ZONED ACRES	0
	TOTALS	148.30
URBAN RESIDENTIAL ACRES (SEWERED)		0
RURAL RESIDENTIAL ACRES (NON-SEWERED)		148.30
EXISTING NUMBER OF UNITS		13
EXISTING RESIDENTIAL ACRES DEVELOPED		6.67
URBAN RESIDENTIAL DENSITY		2.17
RURAL RESIDENTIAL DENSITY		1.5
OCCUPANCY RATE		3.0
MAXIMUM DEVELOPMENT CAPABILITY		96.40
POTENTIAL UNITS		144
POTENTIAL POPULATION		432
EXISTING POPULATION		39
POPULATION CAPABILITY		471

Total population capability if watershed is totally urban which means the extension of water and sewer lines to all rural lands:

URBAN RESIDENTIAL DENSITY	2.17
URBAN RESIDENTIAL ACREAGE	148.30
MAXIMUM DEVELOPMENT CAPABILITY	96.40
POTENTIAL UNITS	209
POTENTIAL POPULATION	627
EXISTING POPULATION	39
TOTAL POPULATION CAPABILITY	666

WATERSHED #10: SWIFT CREEK TRIBUTARY - 7

Total population capability if no new sewer and water lines are extended into present rural areas:

GROSS ACRES		2,957.07
MINUS:	ALLUVIAL SOIL	356.52
	DEVELOPED ACRES	1,051.65
	NON-RESIDENTIAL ZONED ACRES	118.0
	TOTALS	1,430.90

URBAN RESIDENTIAL ACRES (SEWERED)	1,317.03
RURAL RESIDENTIAL ACRES (NON-SEWERED)	113.87
EXISTING NUMBER OF UNITS	1,808
EXISTING RESIDENTIAL ACRES DEVELOPED	447.91
URBAN RESIDENTIAL DENSITY	4
RURAL RESIDENTIAL DENSITY	1.5
OCCUPANCY RATE	3.0
MAXIMUM DEVELOPMENT CAPABILITY	930.02
POTENTIAL UNITS	3,535
POTENTIAL POPULATION	10,605
EXISTING POPULATION	6,063
POPULATION CAPABILITY	16,668

Total population capability if watershed is totally urban which means the extension of water and sewer lines to all rural lands:

URBAN RESIDENTIAL DENSITY	4.00
URBAN RESIDENTIAL ACREAGE	1,430.90
MAXIMUM DEVELOPMENT CAPABILITY	930.09
POTENTIAL UNITS	3,720
POTENTIAL POPULATION	11,160
EXISTING POPULATION	6,063
TOTAL POPULATION CAPABILITY	17,223

WATERSHED #11: UPPER SWIFT CREEK

Total population capability if no new sewer and water lines are extended into present rural areas:

GROSS ACRES		1,137.74
MINUS:	ALLUVIAL SOIL	207.76
	DEVELOPED ACRES	96.65
	NON-RESIDENTIAL ZONED ACRES	16.53
	TOTALS	816.80
URBAN RESIDENTIAL ACRES (SEWERED)		102.39
RURAL RESIDENTIAL ACRES (NON-SEWERED)		714.41
EXISTING NUMBER OF UNITS		16
EXISTING RESIDENTIAL ACRES DEVELOPED		4.11
URBAN RESIDENTIAL DENSITY		2.17
RURAL RESIDENTIAL DENSITY		1.5
OCCUPANCY RATE		3.0
MAXIMUM DEVELOPMENT CAPABILITY		530.92
POTENTIAL UNITS		840
POTENTIAL POPULATION		2,520
EXISTING POPULATION		54
POPULATION CAPABILITY		2,574

Total population capability if watershed is totally urban which means the extension of water and sewer lines to all rural lands:

URBAN RESIDENTIAL DENSITY	2.17
URBAN RESIDENTIAL ACREAGE	816.80
MAXIMUM DEVELOPMENT CAPABILITY	530.92
POTENTIAL UNITS	1,152
POTENTIAL POPULATION	3,456
EXISTING POPULATION	54
TOTAL POPULATION CAPABILITY	3,510

WATERSHED #12: SWIFT CREEK TRIBUTARY - 4

Total population capability if no new sewer and water lines are extended into present rural acres:

GROSS ACRES		323.92
MINUS:	ALLUVIAL SOIL	52.57
	DEVELOPED ACRES	29.84
	NON-RESIDENTIAL ZONED ACRES	0
	TOTALS	241.51

URBAN RESIDENTIAL ACRES (SEWERED)	0
RURAL RESIDENTIAL ACRES (NON-SEWERED)	241.51
EXISTING NUMBER OF UNITS	27
EXISTING RESIDENTIAL ACRES DEVELOPED	13.87
URBAN RESIDENTIAL DENSITY	2.17
RURAL RESIDENTIAL DENSITY	1.5
OCCUPANCY RATE	3.0
MAXIMUM DEVELOPMENT CAPABILITY	156.98
POTENTIAL UNITS	235
POTENTIAL POPULATION	705
EXISTING POPULATION	61
POPULATION CAPABILITY	766

Total population capability if watershed is totally urban which means the extension of water and sewer lines to all rural lands:

URBAN RESIDENTIAL DENSITY	2.17
URBAN RESIDENTIAL ACREAGE	241.51
MAXIMUM DEVELOPMENT CAPABILITY	156.98
POTENTIAL UNITS	341
POTENTIAL POPULATION	1,023
EXISTING POPULATION	61
TOTAL POPULATION CAPABILITY	1,084

CARY PLANNING AREA

POPULATION CAPABILITY BY WATERSHED

information required :

gross acres
minus : alluvial soils
developed acres
non-residential
urban residential acres (sewered)
rural residential acres (unsewed)
existing number of dwelling units
existing residential acres developed
urban residential density
rural residential density
occupancy rate

urban capability
avail. urb. res. ac. X max. res. dev. factor = max. dev. cap.
dev. cap. X urb. res. density = potential units
pot. units X occupancy rate = potential population

rural capability
same process as urban capability
substituting rural res. ac. for urban res. ac.
and rural res. density for urban density

existing population
urb. pot. pop. + rural pot. pop = total pot. pop.
total pot. pop. + exist. pop. = pop. capability

total pop. capability at present = 58,626

watershed: #3 crabtree creek tributary - 6

gross acres	426.70
minus: alluvial soil	39.72
developed acres	53.95
non-residential zoned acres	0
totals	331.04
urban residential acres (sewered)	0
rural residential acres (non-sewered)	331.04
existing number of units	61
existing residential acres developed	31.37
urban residential density	2.17
rural residential density	1.5
occupancy rate	3.0
maximum development capability	215.18
potential units	323
potential population	969
existing population	183
population capability	1152

watershed: #4 black creek

gross acres	1762.07
minus: alluvial soil	134.76
developed acres	209.37
non-residential zoned acres	34.30
totals	1383.64
urban residential acres (sewered)	181.87
rural residential acres (non-sewered)	1392.17
existing number of units	304
existing residential acres developed	73.49
urban residential density	4.36
rural residential density	1.5
occupancy rate	3.0
maximum development capability	899.50
potential units	1679
potential population	5035
existing population	912
population capability	5947

watershed: #5 reedy creek

gross acres	1233.32
minus: alluvial soil	100.32
developed acres	322.77
non-residential zoned acres	84.48
totals	725.67
urban residential acres (sewered)	0
rural residential acres (non-sewered)	725.67
existing number of units	380
existing residential acres developed	177.44
urban residential density	2.17
rural residential density	1.5
occupancy rate	3.0
maximum development capability	471.69
potential units	708
potential population	2124
existing population	1080
population capability	3204

watershed: #6 Johnson creek

gross acres	2081.73
minus: alluvial soil	163.75
developed acres	1085.48
non-residential zoned acres	295.90
totals	661.82
urban residential acres (sewered)	639.35
rural residential acres (non-sewered)	22.47
existing number of units	1709
existing residential acres developed	329.07
urban residential density	5.53
rural residential density	1.5
occupancy rate	3.0
maximum development capability	130.06
potential units	2380
potential population	6960
existing population	5068
population capability	12049

watershed: #2 upper crabtree creek

gross acres	840.45
minus: alluvial soil	80.41
developed acres	121.44
non-residential zoned acres	0
totals	638.20
urban residential acres (sewered)	27.16
rural residential acres (non-sewered)	611.04
existing number of units	196
existing residential acres developed	65.41
urban residential density	3.21
rural residential density	1.5
occupancy rate	3.0
maximum development capability	444.93
potential units	693
potential population	1959
existing population	589
population capability	2548

watershed: #8 cedar branch

gross acres	1092.29
minus: alluvial soil	157.96
developed acres	140.27
non-residential zoned acres	60.84
totals	733.24
urban residential acres (sewered)	74.76
rural residential acres (non-sewered)	658.48
existing number of units	301
existing residential acres developed	89.28
urban residential density	3.75
rural residential density	1.5
occupancy rate	3.0
maximum development capability	475.60
potential units	824
potential population	2473
existing population	1208
population capability	3680

watershed: #10 swift creek tributary - 7

gross acres	2957.07
minus: alluvial soil	356.38
developed acres	1051.69
non-residential zoned acres	118.00
totals	1430.90
urban residential acres (sewered)	1317.09
rural residential acres (non-sewered)	113.81
existing number of units	1791
existing residential acres developed	467.91
urban residential density	4
rural residential density	1.5
occupancy rate	3.0
maximum development capability	930.02
potential units	3535
potential population	10605
existing population	6063
population capability	15980

watershed: #11 swift creek

gross acres	1197.74
minus: alluvial soil	207.76
developed acres	99.65
non-residential zoned acres	16.50
totals	815.80
urban residential acres (sewered)	100.79
rural residential acres (non-sewered)	714.61
existing number of units	8
existing residential acres developed	4.11
urban residential density	2.17
rural residential density	1.5
occupancy rate	3.0
maximum development capability	530.92
potential units	860
potential population	2580
existing population	34
population capability	2574

watershed: #9 swift creek

gross acres	308.92
minus: alluvial soil	171.72
developed acres	9.99
non-residential zoned acres	0
totals	148.30
urban residential acres (sewered)	0
rural residential acres (non-sewered)	148.30
existing number of units	13
existing residential acres developed	6.67
urban residential density	2.17
rural residential density	1.5
occupancy rate	3.0
maximum development capability	96.40
potential units	144
potential population	432
existing population	39
population capability	471

watershed: #7 swift creek tributary - 5

gross acres	1809.69
minus: alluvial soil	147.15
developed acres	576.15
non-residential zoned acres	41.37
totals	1045.00
urban residential acres (sewered)	588.62
rural residential acres (non-sewered)	455.64
existing number of units	935
existing residential acres developed	319.52
urban residential density	2.93
rural residential density	1.5
occupancy rate	3.0
maximum development capability	678.01
potential units	1539
potential population	4597
existing population	2855
population capability	7680

watershed: #12 swift creek tributary

gross acres	523.92
minus: alluvial soil	52.57
developed acres	29.84
non-residential zoned acres	0
totals	441.51
urban residential acres (sewered)	0
rural residential acres (non-sewered)	441.51
existing number of units	27
existing residential acres developed	13.87
urban residential density	2.17
rural residential density	1.5
occupancy rate	3.0
maximum development capability	136.98
potential units	235
potential population	705
existing population	61
population capability	766

watershed: #1 swift creek tributary - 6

gross acres	848.94
minus: alluvial soil	270.57
developed acres	94.33
non-residential zoned acres	0
totals	584.02
urban residential acres (sewered)	116.85
rural residential acres (non-sewered)	467.17
existing number of units	54
existing residential acres developed	24.60
urban residential density	4.17
rural residential density	1.5
occupancy rate	3.0
maximum development capability	379.61
potential units	640
potential population	1860
existing population	265
population capability	2105

TOWN OF CARY
NORTH CAROLINA

DEPARTMENT OF PLANNING & DEVELOPMENT

JULY, 1975

0 500 1000 2000 3000 4000
SCALE IN FEET

NORTH

POPULATION CAPABILITY SUMMARY

It is very important to understand what these figures mean in terms of a Land Use Plan. As Cary grows, the Planning Department can monitor growth and compare it against present predictions for each watershed, thus giving us a needed tool for determining public services and proper utilization of land without excessive cost over-runs and degrading environmental effects.

By knowing the number of people now occupying, and those expected to occupy, a watershed over a five year period or at maximum potential, we can determine the amount of sewer and water lines in terms of size and linear feet that will be needed to support this added population. The case may be to replace existing lines of a smaller size to larger ones or run parallel lines. The new lines can be predetermined on master sewer and water plans that would accommodate any population increases up to the maximum population potential of a watershed. We can then revert back to the watershed study which integrates land characteristics in determining where lines would be placed throughout the watersheds. By studying soils, slopes, elevation, vegetation and flood plains, the areas where the population will be concentrated is outlined and it becomes almost academic as to where the lines should be placed to achieve the most sufficient quality (economically and environmentally) and service. The cost that could be saved in unpredictable, but it is assured the benefits from such planning could only help the Town of Cary and its citizens.

The examples used are not the only areas where a comprehensive land use plan can render assistance in the physical planning process. Transportation systems, recreation needs, schools, and land use management, are a few of the other public services that could be studied in the same manner as sewer and water facilities were in the above examples.

POPULATION BY NEIGHBORHOOD WITHIN CARY'S CORPORATE LIMITS

This publication would not be complete without an analysis of the present population within the corporate limits, and the potential information available for the Planning Department to utilize. The analysis focused on the material obtained by the special census of Cary in May 1975, conducted by the Federal Bureau of the Census.

The material has been studies, classified and mapped according to the existing population within the Town limits by neighborhoods, and by watersheds. The Town of Cary is first divided into seventeen neighborhoods which comprises the population of Cary with the corporate limits, 14,677. Each neighborhood was further broken down into demographic information as follows:

1. A total population for each neighborhood

2. A total number of males and females, and

3. A total number of persons per age group

From the demographic information above, we obtained a median age for each neighborhood. Based on this information, it was found that the median age for the Town of Cary was a surprising 26.2 average.

Cary's population was also grouped according to the seven watersheds which make up the existing physical land conditions within the corporate limits. Each watershed was classified and mapped with regards to the number of neighborhoods and total population by age and sex. Included in the survey were the number of occupied housing units, vacant units, and the occupancy rate for each watershed within the corporate limits of the Town.

There is no way to describe the importance of having such information available. It will prove to be a valuable planning tool in establishing proposed programs and aiding existing ones like greenway systems and recreation needs by neighborhood.

The following pages outline the results of our investigation, first by neighborhood and then by watershed.

POPULATION BY NEIGHBORHOOD WITHIN CORPORATE LIMITS

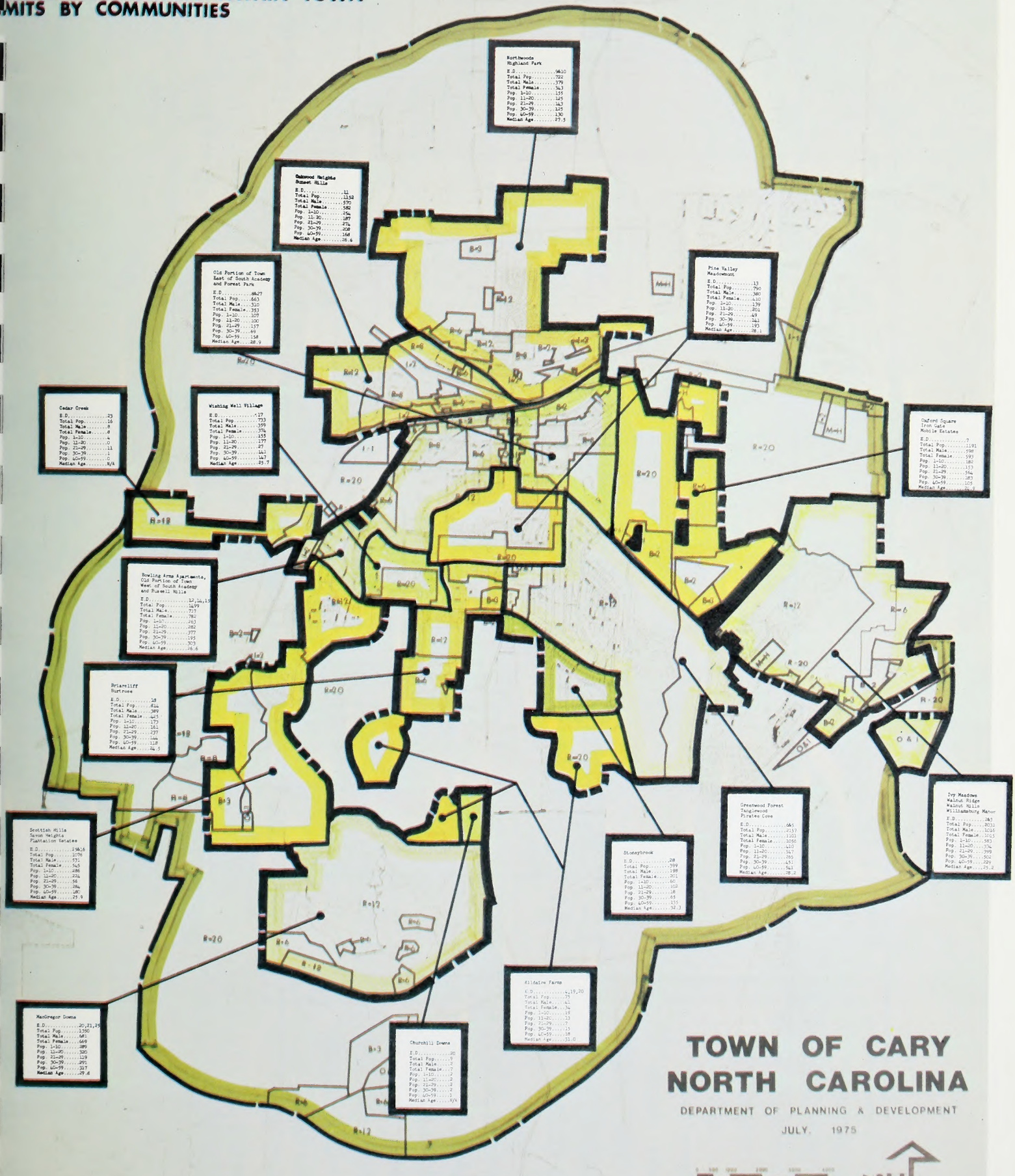
	E. D.	Total Pop.	Total Male	Total Fe-Male	Pop. 1 to 10	Pop. 11 to 20	Pop. 21 to 29	Pop. 30 to 39	Pop. 40 to 59	Pop. 59 and over	Median Age
MACGREGOR DOWNS	25	1350	681	669	264	320	119	291	317	39	29.8
CHURCHILL DOWNS	20	9	2	7	2	2	2	2	1	0	N/A
IVY MEADOWS WALNUT RIDGE WALNUT HILLS WILLIAMSBURG MANOR	2 &3	2031	1016	1015	583	334	370	502	229	13	25.2
OLD PART OF TOWN WEST OF S. ACADEMY & RUSSELL HILLS	12 14 &15	1499	717	782	263	282	328	195	303	128	26.6
OLD PART OF TOWN EAST OF S. ACADEMY & FOREST PARK	8&27	663	310	353	107	100	137	69	158	92	28.9
TOTALS	2 thru 28	14,667	7,280	7,397	3,107	2,967	2,497	2,763	2,742	601	26.2

POPULATION BY NEIGHBORHOOD WITHIN CORPORATE LIMITS

	E. D.	Total Pop.	Total Male	Total Fe-Male	Pop. 1 to 10	Pop. 11 to 20	Pop. 21 to 29	Pop. 30 to 39	Pop. 40 to 59	Pop. 59 and over	Median Age
NORTHWOODS											
HIGHLAND PARK	10	722	379	343	155	125	143	125	130	44	27.5
OAKWOOD HEIGHTS											
SUNSET HILLS	11	1152	570	582	254	187	274	208	168	61	26.6
CEDAR CREEK	23	16	8	8	4	0	11	1	0	0	N/A
WISHING WELL VILLAGE	17	733	359	374	165	177	82	141	147	21	25.7
GREENWOOD FOREST											
TANGLEWOOD											
PIRATE'S COVE	6&5	2157	1101	1056	410	560	178	397	541	71	28.2
IRONGATE											
MOBILE ESTATES	7	1191	598	593	223	153	504	183	105	23	24.9
PINE VALLEY											
MEADOWMONT	13	790	380	410	139	201	69	141	193	47	28.1
STONEYBROOK	28	399	198	201	60	111	15	65	135	13	32.3
BRIARCLIFF											
BURTROSE	18	814	389	425	173	161	202	144	118	16	24.5
KILDAIRE FARMS	4,19,20	75	41	34	19	13	7	15	17	4	31.0
SCOTTISH HILLS											
SAVON HEIGHTS											
PLANTATION ESTATES	25&16	1076	531	545	286	241	56	284	180	29	25.9

CARY PLANNING AREA

RESENT POPULATION WITHIN TOWN LIMITS BY COMMUNITIES



POPULATION BY WATERSHED WITHIN CORPORATE LIMITS

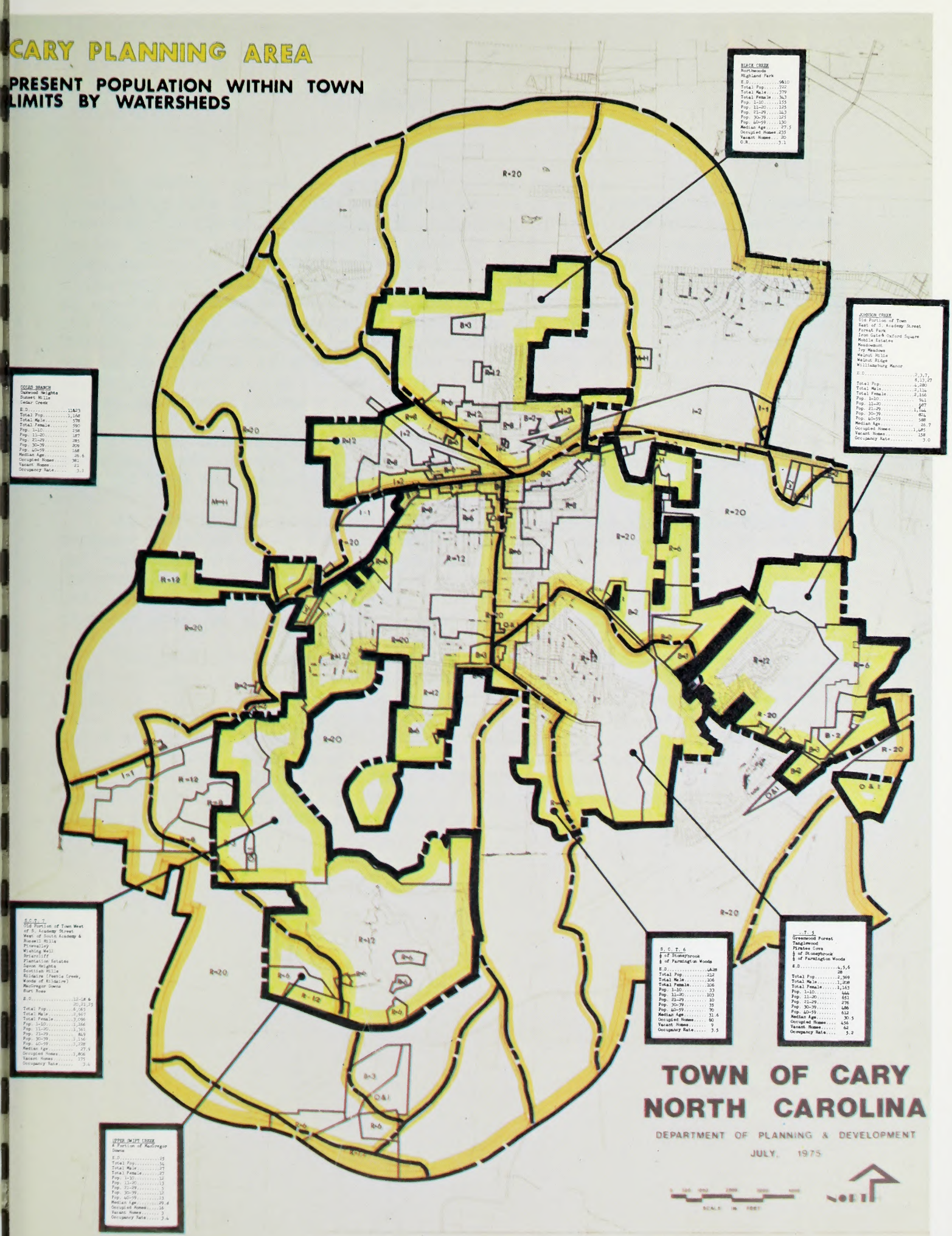
	E.D.	Total Pop.	Total Male	Total Fe-Male	Pop. 1 to 10	Pop. 11 to 20	Pop. 21 to 29	Pop. 30 to 39	Pop. 40 to 59	Pop. 59 and over	Median age	Occu-pied Homes	Occu-pancy rate	Vacant Homes
BLACK CREEK														
NORTHWOODS														
HIGHLAND PARK	9& 10	722	379	343	155	125	143	125	130	44	27.5	235	3.1	20
JOHNSON CREEK														
OLD PORTION OF TOWN														
& FOREST PARK														
IRONGATE														
MOBILE ESTATES														
MEADOWMONT														
IVY MEADOWS														
WALNUT HILLS														
WALNUT RIDGE														
WILLIAMSBURG MANOR	2, 3,7,8, 13&27	4271	2114	2157	941	687	1118	824	588	113	26.7	1485	3.0	158
SWIFT CREEK TRIBUTARY 5														
GREENWOOD FOREST														
TANGLEWOOD														
PIRATE'S COVE														
½ OF STONEYBROOK														
½ OF FARMINGTON WOODS	4,5, 6&28	2271	1158	1113	390	597	222	432	559	71	30.5	456	5.2	62
SWIFT CREEK TRIBUTARY 6														
½ OF STONEYBROOK														
½ OF FARMINGTON WOODS	4&28	183	92	91	23	68	6	25	45	16	31.6	60	3.5	9

POPULATION BY WATERSHED WITHIN CORPORATE LIMITS

	E.D.	Total Pop.	Total Male	Total Fe Male	Pop. 1 to 10	Pop. 11 to 20	Pop. 21 to 29	Pop. 30 to 39	Pop. 40 to 59	Pop. 59 and over	Median age	Occu- pied Homes	Occu- pancy rate	Vacant Homes
SWIFT CREEK TRIBUTARY 7														
OLD PORTION OF TOWN														
WEST OF S. ACADEMY &														
RUSSELL HILLS														
PINE VALLEY														
WISHING WELL														
BRIARCLIFF														
PLANTATION ESTATES														
SAVON HEIGHTS														
SCOTTISH HILLS														
KILDAIRE (PEBBLE CREEK)														
WOODS OF KILDAIRE														
CHURCHILL DOWNS	12 thru 18& 20,21													
MACGREGOR DOWNS														
BURTROSE	&25	6020	2967	3053	1241	1336	833	1131	1203	276	27.9	1806	3.4	175
UPPER SWIFT CREEK														
A PORTION OF MACGREGOR														
DOWNS	25	42	21	21	2	3	5	9	3	20	29.8	16	3.4	3
COLES BRANCH														
OAKWOOD HEIGHTS														
SUNSET HILLS	11 &													
CEDAR CREEK	23	1168	578	590	258	187	285	209	168	61	26.6	381	3.1	21

CARY PLANNING AREA

PRESENT POPULATION WITHIN TOWN LIMITS BY WATERSHEDS



TOWN OF CARY
NORTH CAROLINA

DEPARTMENT OF PLANNING & DEVELOPMENT

JULY, 1975

PUBLICATION SUMMARY

In summary, population projections are as important to the land use planning process as any item we have presented or will present in the future. There is a definite correlation and subsequent interrelationship between population and the land we occupy. In order to create a homogenous environment, there must be an understanding of how to utilize land according to its physical characteristics and the people it supports. Based on the population projections, we now can estimate how many people can safely live in a certain watershed, and can then turn to the watershed planning units and determine where and at what density available land can be used. The whole environmental system is based upon a land entity, watersheds. Understanding their characteristics and not over-taxing their potential for population uses and distribution, is the only way we can honestly foresee our development capability and economic stability.

Studying our population and how it could increase, aids in the proper planning of the community and enhances a more desirable and qualified land use plan for Cary and its extraterritorial jurisdiction.

Our next step in preparing a Comprehensive Land Use Plan is to develop an economic study of Cary. Now that we know how many people can be supported on our available land base, the next question is, can the Town support such increases economically and how much commercial, industrial, and office and institutional land is needed in the future? These and other questions will be answered when the economic study is completed and published.

This publication and all maps and data are available to the public through the Department of Planning and Development for review by any interested citizens. A copy of this publication may be obtained at the Planning Department upon request. Also, the total process for population projections in this publication is like any planning aid, it has to be updated. The same procedures presented to you in this publication, with the exception of the census information, will be repeated at the end of each fiscal year for five year increments. We will gather and assemble data and publish supplements to this publication to keep an accurate and up-to-date Comprehensive Land Use Plan.

APPENDIX

a - 1980 Projected Population Summary Chart

b - Population Capability Summary Chart

1980 PROJECTED-POPULATION

	Available Gross Residential Acres	No. of Units Built Since June 1969	Urban Residential Density	Rural Residential Density	5 Year Development Volume	Present Available Urban Residential Acres	Growth Factor	Present Available Rural Residential Acres	Growth Factor	Anticipated Acres of Development	Antic. Ac. of Dev. X Res. Density X Antic. Units X Occupancy Rate	Anticipated Population	1980 Projected Population	Present Increase
#1 - Upper Crabtree Creek	840.45	18	3.21	2.17	5.61	27.16	17%	611.04	0%	4.48	14	42	589	631	1%
#2 - Coles Branch	1031.45	140	3.75	2.17	37.33	74.76	19%	658.48	0%	14.54	55	165	1208	1373	4%
#3 - CCT-6	424.70	8	0	2.17	3.69	0	0%	331.04	1%	2.87	6	18	183	201	0%
#4 - Black Creek	1727.97	159	4.14	2.17	37.44	191.67	10%	1192.17	0%	19.85	82	246	912	1158	6%
#5 - Reedy Creek	1080.12	291	0	2.17	134.10	0	0%	725.67	12%	90.09	195	585	1080	1665	14%
#6 - Johnson Creek	1855.83	973	5.53	2.17	175.95	639.35	10%	22.27	0%	65.41	362	1086	5069	6155	26%
#7 - SCT-5	1763.32	455	2.93	2.17	153.58	586.62	13%	453.40	0%	76.04	223	669	2805	3474	16%
#8 - SCT-6	848.94	13	2.17	2.17	5.07	116.85	3%	467.17	0%	3.42	7	21	245	266	1%
#9 - Swift Creek	328.97	0	0	2.17	0	0	0%	148.30	0%	0	0	0	39	39	0%
#10 - SCT-7	2839.07	939	4.00	2.17	234.75	1317.03	8%	113.87	0%	110.09	440	1320	6063	7383	32%
#11 - Upper Swift Creek	919.21	1	2.17	2.17	0	102.39	0%	714.41	0%	0	0	0	54	54	0%
#12 - SCT-4	323.92	0	0	2.17	0	0	0%	241.51	0%	0	0	0	61	61	0%

NOTE: Calculations used to derive figures for 1980 projected population by watershed.

Includes:
Developed
Undeveloped
Alluvial Soil

Building Permits

No. of Urb. Units / No. of Acres

No. of Rural Units / No. of Acres

No. of Units Over 5 yr. / Res. Density

Plainimeter

5 Yr. Dev. Volume / Avail. Gross Res. Ac.

Plainimeter

5 Yr. Dev. Volume / Avail. Gross Res. Ac.

Present Avail. Res. X Growth Factor

Antic. Ac. of Dev. X Res. Density X Antic. Units X Occupancy Rate

Survey

Antic. Pop. + Present Pop.

Projected Pop. / 4152

POPULATION CAPABILITY	Gross Acres	Minus: (Alluvial soil)	Minus: (Developed Acres)	Minus: (Non-res. zoned acres)	Totals: (Residential Acres)	Urban Residential Acres (sewered)	Rural Residential Acres (non-sewered)	Existing number of Units	Existing residential acres developed	Urban Residential Density (Units/Ac.)	Rural Residential Density (Units/Ac.)	Occupancy Rate	Maximum Development Capability	Potential Units	Potential Population	Existing Population	Population Capability
#1 - Upper Crabtree Creek	840.45	80.81	121.44	0	638.20	27.16	611.04	196	45.61	3.21	1.5	3.0	414.93	653	1959	589	2548
#2 - Coles Branch	1092.29	157.94	140.27	60.84	733.24	74.76	658.48	393	85.78	3.75	1.5	3.0	475.60	824	2472	1208	3680
#3 - CCT-6	424.70	39.72	53.95	0	331.04	0	331.04	61	31.37	2.17	1.5	3.0	215.18	323	969	183	1152
#4 - Black Creek	1752.07	134.76	209.37	24.10	1383.84	191.67	1192.17	304	73.49	4.14	1.5	3.0	899.50	1679	5035	912	5947
#5 - Reedy Creek	1233.24	100.32	322.77	84.48	725.67	0	725.67	360	171.24	2.17	1.5	3.0	471.69	708	2124	1080	3204
#6 - Johnson Creek	2081.73	163.73	1025.48	225.90	661.62	639.35	22.27	1709	309.07	5.53	1.5	3.0	430.06	2320	6960	5069	12029
#7 - SCT-5	1809.69	147.15	576.15	46.37	1040.02	586.62	453.62	935	319.52	2.93	1.5	3.0	676.01	1559	4677	2805	7482
#8 - SCT-6	848.94	170.57	94.35	0	584.02	116.85	467.17	64	32.60	2.17	1.5	3.0	379.61	620	1860	245	2105
#9 - Swift Creek	328.97	171.72	8.95	0	148.30	0	148.30	13	6.67	2.17	1.5	3.0	96.40	144	432	39	471
#10 - SCT-7	2957.07	356.52	1051.65	118.00	1430.90	1317.03	113.87	1808	447.41	4.00	1.5	3.0	930.02	3535	10605	6063	16668
#11 - Upper Swift Creek	1137.74	207.76	96.65	16.53	816.80	102.39	714.41	16	4.11	2.17	1.5	3.0	530.92	840	2520	54	2574
#12 - SCT-4	323.92	52.57	29.84	0	241.51	0	241.51	27	13.87	2.17	1.5	3.0	156.98	235	705	61	766

NOTE: Calculations used to derive figures for population capability by watershed.

Plainimeter

Plainimeter

Plainimeter

Plainimeter

Subtract: Columes 2, 3, & 4 from Gross Ac.

Plainimeter

Plainimeter

Survey & Air Photos

Existing Units X Zoning Districts

Number of Units / Number of Ac.

No. of Rural Units / 30,000 Sq. Ft.

Avail. Res. Ac. X .65

Dev. Capability X Density

Potential Units X 3.0

Survey

Potential Pop. + Existing Pop.